

Enjoy peace of mind. SDART preparing today.

Protected source of water – or a puddle

Fresh water after a disaster may be as close as your water heater – provided, of course, that it remains standing upright. A typical water heater holds 30 to 50 gallons of water.

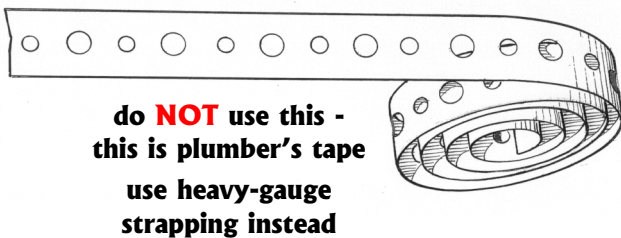
However, this supply of water is extremely vulnerable to the ground undulation (swells and rolls) and ground acceleration of earthquakes, causing them to tip over.

You can protect this valuable resource by securing your water heater to the wall studs.

Changes to strapping recommendations

Experts have modified the recommended procedure for strapping water heaters because many tanks burst through their strapping in both the 1989 Loma Prieta (San Francisco) and the 1994 Northridge (Los Angeles) earthquakes. Experts recommend these two important changes:

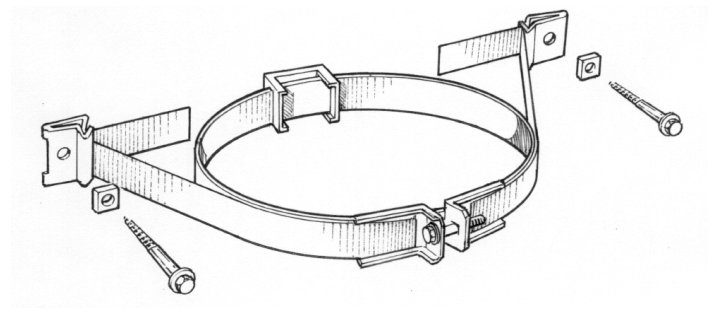
1. Secure both the top and the bottom, rather than just the top or just the middle, of the hot water tank.
2. Use heavy-gauge metal strapping rather than plumber's tape. Many water heaters in both the 1989 and the 1994 earthquakes burst through the plumber's tape that was intended to keep them secure. Plumber's tape has been found to be too brittle to be effective.



Securing your hot water tank

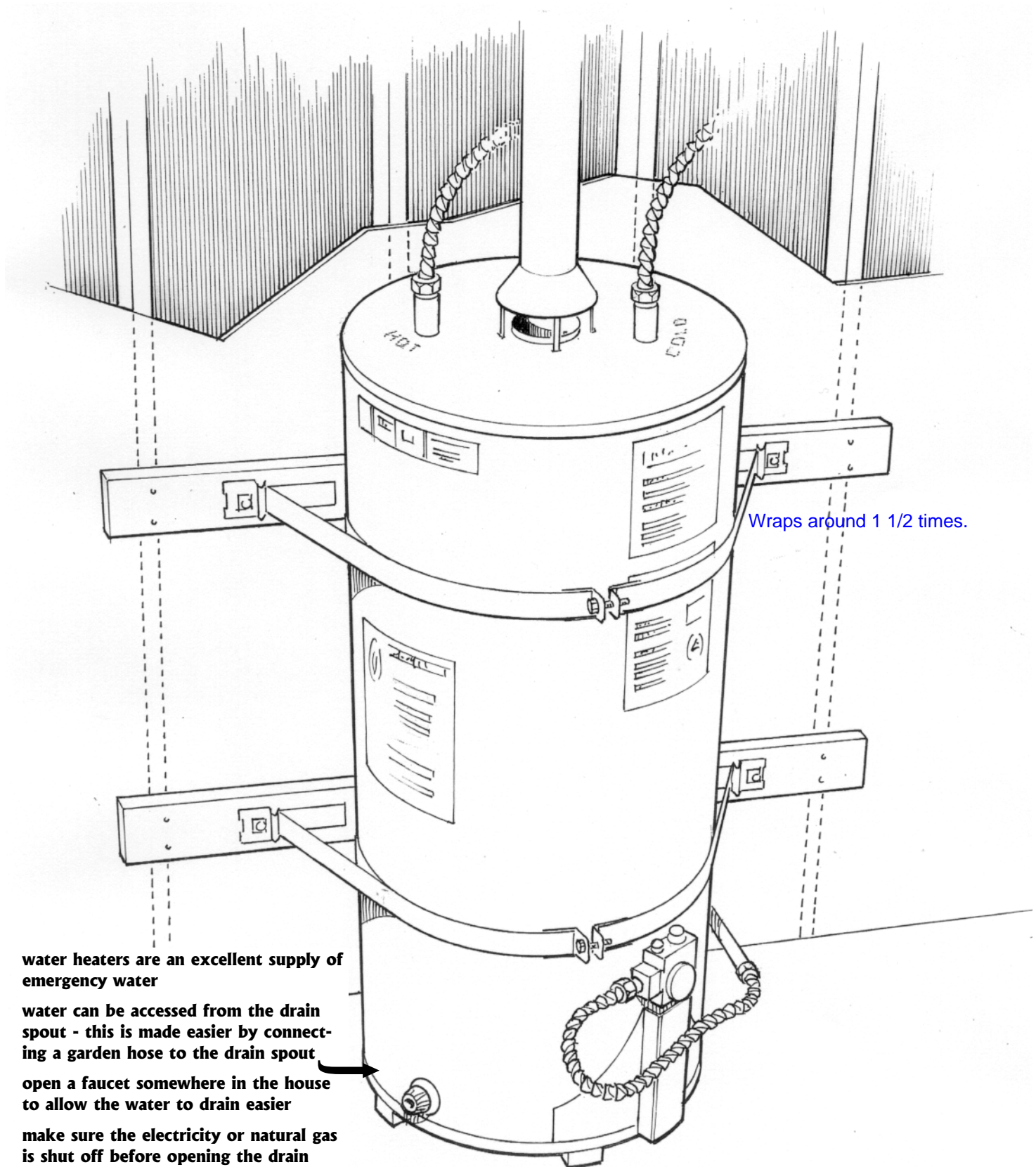
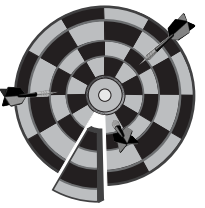
Secure your water heater.

- There should be very little space between the water heater and the wall. If there is more than 1 or 2 inches, attach a wooden block to the wall studs with long lag screws (see illustration on page 20). The purpose is to prevent the heater from tipping backwards.
- Wrap the heavy-gauge metal strapping 1 1/2 times around the tank. Start by placing the strapping at the back of the tank. Bring it to the front and then take it back to the wall (see illustration).
- Secure this strapping to the wall studs or the wood block using several 1/4" x 3" or longer lag screws *with oversized washers*. If you are securing it directly into concrete, use 1/4" expansion bolts in place of the screws.



Commercially available kits like this one come complete with the strapping, lag screws, washers, spacers, and tension bolts. These kits can be purchased at many local hardware stores, and are recommended.

- Replace all copper and metal piping with flexible natural gas and water line connectors.



Wraps around 1 1/2 times.

water heaters are an excellent supply of emergency water

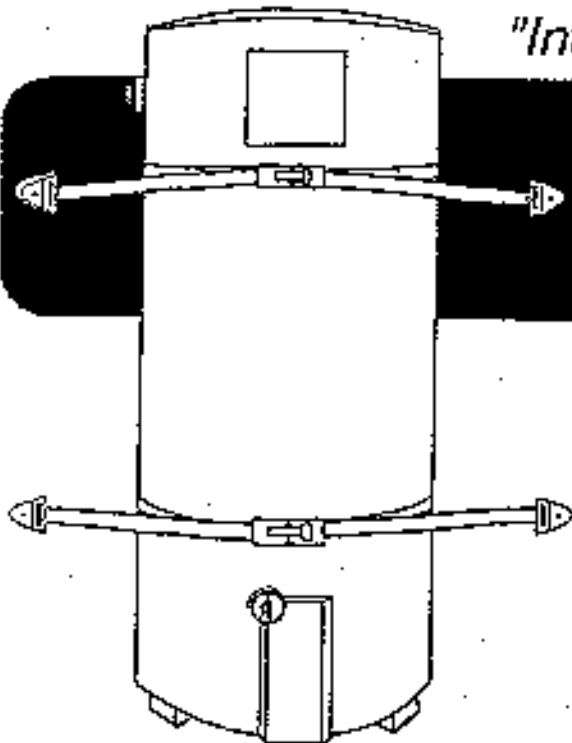
water can be accessed from the drain spout - this is made easier by connecting a garden hose to the drain spout

open a faucet somewhere in the house to allow the water to drain easier

make sure the electricity or natural gas is shut off before opening the drain

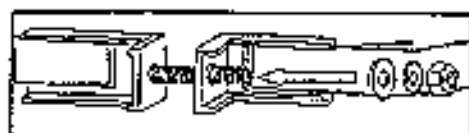
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SPACEMAKER STRAPS



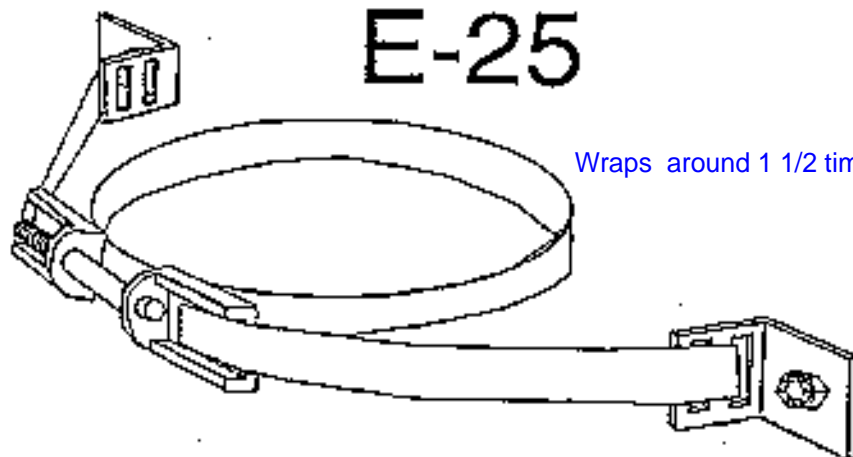
- INSTALLS QUICKLY
- ALL FASTENERS INCLUDED
- COMPLIES WITH 1994 CODE
- NO SPECIAL TOOLS NEEDED
- FOR UP TO 40 GALLON HEATERS
- ACCEPTED DSA GENERIC DESIGN
- TESTED BY MAJOR CA PUBLIC UTILITY

PATENT PENDING



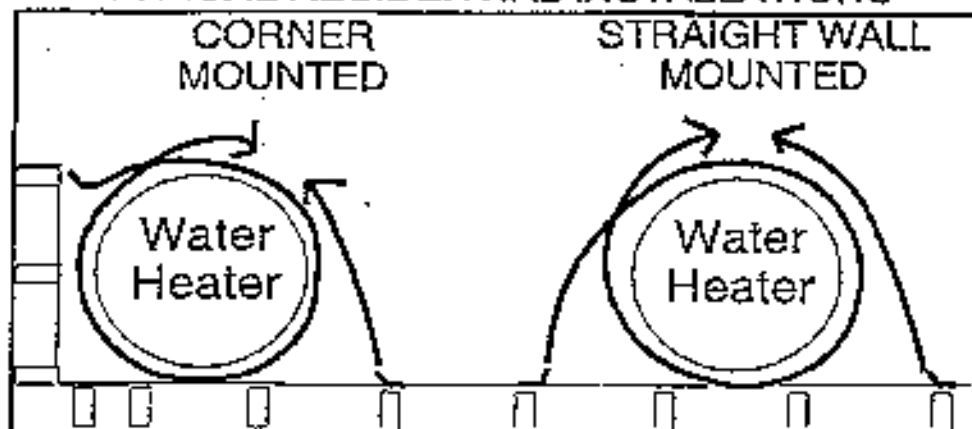
"EVERY STRAP FEATURES THESE EASY-
TO-USE FRONT TENSIONING BRACKETS!"

E-25



Wraps around 1 1/2 times.

TYPICAL RESIDENTIAL INSTALLATIONS



STATE OF CALIFORNIA
ARCHITECT
CA - OSA
93-00002
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THE NEW "STATE ACCEPTABLE"

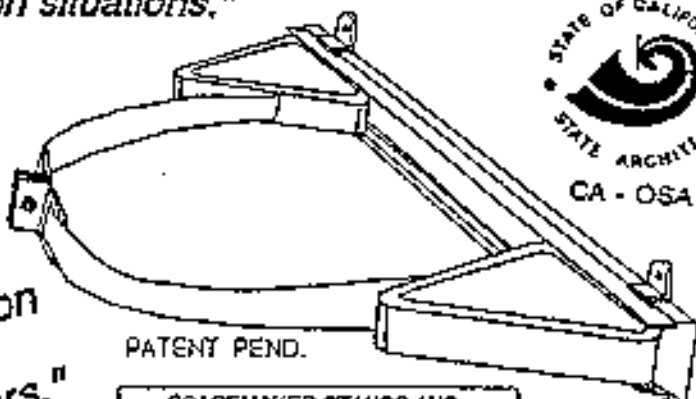
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WATER HEATER SEISMIC RESTRAINT

"The fully engineered and tested restraint system adapts to virtually all installation situations."



PEND.



SPACEMAKER STANDS AND RESTRAINTS HAVE PASSED SHAKE TESTS @ 200% UBC RECOMMENDATIONS FOR SEISMIC ZONE 4 INSTALLATIONS.

"Spacemaker's complete answer to all the confusion surrounding seismic securing of water heaters."

- ✓ IMMEDIATELY ADAPTS TO ANY STUD CONFIGURATION
- ✓ ACCOMODATES 20 TO 100 GALLON WATER HEATERS
- ✓ FITS INTO SMALL CABINETS AND CRAMPED SPACES
- ✓ EXCLUSIVE EASY TENSIONING BUCKLES
- ✓ ASSEMBLES IN MINUTES
- ✓ COMPLIES WITH AB 1890
- ✓ ALL PARTS INCLUDED
- ✓ INEXPENSIVE TO USE

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SPACEMAKER!!!

TANK SIZE	MODEL #
20 TO 52 GALLON	E-50: SINGLE RESTRAINT
60 TO 140 GALLON	E-100: DOUBLE RESTRAINT
150 GALLON UP	E-1000: CUSTOM ORDER

